

Resource Summary Report

Generated by [nidm-terms](#) on Jul 29, 2026

DBA/2J-Gpnmb⁺/SjJ

RRID:IMSR_JAX:007048

Type: Organism

Proper Citation

RRID:IMSR_JAX:007048

Organism Information

URL: <https://www.jax.org/strain/007048>

Proper Citation: RRID:IMSR_JAX:007048

Description: Mus musculus with name DBA/2J-Gpnmb⁺/SjJ from IMSR.

Species: Mus musculus

Notes: gene symbol note: cadherin related 23 (otocadherin)|hemolytic complement|glycoprotein (transmembrane) nmb; inbred strain: Cdh23|Hc|Gpnmb

Affected Gene: cadherin related 23 (otocadherin)|hemolytic complement|glycoprotein (transmembrane) nmb

Genomic Alteration: age related hearing loss 1|deficient|wild type

Catalog Number: JAX:007048

Database: JAX Mice and Services

Database Abbreviation: JAX

Availability: live

Organism Name: DBA/2J-Gpnmb⁺/SjJ

Record Creation Time: 20250513T053700+0000

Record Last Update: 20260725T044413+0000

Ratings and Alerts

No rating or validation information has been found for DBA/2J-Gpnmb⁺/SjJ.

No alerts have been found for DBA/2J-Gpnmb⁺/SjJ.

Data and Source Information

Source: [Integrated Animals](#)

Source Database: JAX Mice and Services

Usage and Citation Metrics

We found 32 mentions in open access literature.

Listed below are recent publications. The full list is available at [nidm-terms](#) .

Thompson JL, et al. (2025) Microglia remodeling in the visual thalamus of the DBA/2J mouse model of glaucoma. PloS one, 20(5), e0323513.

Van Hook MJ, et al. (2024) Enhanced Synaptic Inhibition in the Dorsolateral Geniculate Nucleus in a Mouse Model of Glaucoma. eNeuro, 11(7).

Hurst CD, et al. (2023) Genetic background influences the 5XFAD Alzheimer's disease mouse model brain proteome. bioRxiv : the preprint server for biology.

Hurst CD, et al. (2023) Genetic background influences the 5XFAD Alzheimer's disease mouse model brain proteome. Frontiers in aging neuroscience, 15, 1239116.

Suda M, et al. (2022) Glycoprotein nonmetastatic melanoma protein B regulates lysosomal integrity and lifespan of senescent cells. Scientific reports, 12(1), 6522.

Meah A, et al. (2022) Axonal architecture of the mouse inner retina revealed by second harmonic generation. PNAS nexus, 1(4), pgac160.

Margeta MA, et al. (2022) Apolipoprotein E4 impairs the response of neurodegenerative retinal microglia and prevents neuronal loss in glaucoma. Immunity, 55(9), 1627.

Smith JC, et al. (2022) Loss of Retinogeniculate Synaptic Function in the DBA/2J Mouse Model of Glaucoma. eNeuro, 9(6).

Robinet P, et al. (2021) Quantitative trait locus mapping identifies the Gpnmb gene as a modifier of mouse macrophage lysosome function. Scientific reports, 11(1), 10249.

Colbert MK, et al. (2021) Diffusion Tensor Imaging of Visual Pathway Abnormalities in Five Glaucoma Animal Models. Investigative ophthalmology & visual science, 62(10), 21.

Amato R, et al. (2021) The Potential of Lisosan G as a Possible Treatment for Glaucoma. Frontiers in pharmacology, 12, 719951.

Amato R, et al. (2021) Diabetes Exacerbates the Intraocular Pressure-Independent Retinal Ganglion Cells Degeneration in the DBA/2J Model of Glaucoma. Investigative ophthalmology & visual science, 62(9), 9.

Rohowetz LJ, et al. (2021) The Contribution of Anterior Segment Abnormalities to Changes in Intraocular Pressure in the DBA/2J Mouse Model of Glaucoma: DBA/2J-Gpnmb +/SjJ Mice as Critical Controls. *Frontiers in neuroscience*, 15, 801184.

Tolman NG, et al. (2021) Genetic background modifies vulnerability to glaucoma-related phenotypes in Lmx1b mutant mice. *Disease models & mechanisms*, 14(2).

Kingston R, et al. (2021) Serotonin transporter-mediated molecular axis regulates regional retinal ganglion cell vulnerability and axon regeneration after nerve injury. *PLoS genetics*, 17(11), e1009885.

Lambert WS, et al. (2020) Of Mice and Monkeys: Neuroprotective Efficacy of the p38 Inhibitor BIRB 796 Depends on Model Duration in Experimental Glaucoma. *Scientific reports*, 10(1), 8535.

Fernández-Vega Cueto A, et al. (2020) Systemic Alterations of Immune Response-Related Proteins during Glaucoma Development in the Murine Model DBA/2J. *Diagnostics (Basel, Switzerland)*, 10(6).

Fiedorowicz M, et al. (2020) Changes of Ocular Dimensions as a Marker of Disease Progression in a Murine Model of Pigmentary Glaucoma. *Frontiers in pharmacology*, 11, 573238.

Shim MS, et al. (2018) Elevated intracellular cAMP exacerbates vulnerability to oxidative stress in optic nerve head astrocytes. *Cell death & disease*, 9(3), 285.

Sharoukhov D, et al. (2018) Microtubule Imaging Reveals Cytoskeletal Deficit Predisposing the Retinal Ganglion Cell Axons to Atrophy in DBA/2J. *Investigative ophthalmology & visual science*, 59(13), 5292.